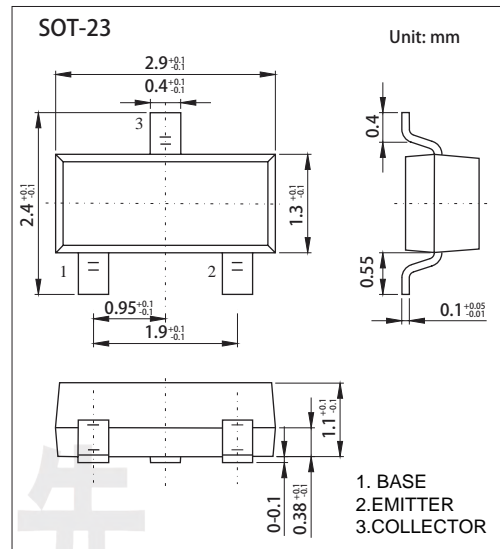


## PNP Transistors

### MMBT2907

#### ■ Features

- Epitaxial planar die construction
- Complementary to MMBT2222



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-60	V
Collector - Emitter Voltage	$V_{CE0}$	-40	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_c$	-600	mA
Collector Power Dissipation	$P_c$	250	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to 150	

# Transistor

## PNP Transistors MMBT2907

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = -10 μA, I <sub>E</sub> =0	-60			V
Collector- emitter breakdown voltage	V <sub>CE0</sub>	I <sub>c</sub> = -10 mA, I <sub>B</sub> =0	-40			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = -10 μA, I <sub>c</sub> =0	-5			
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -50 V, I <sub>E</sub> =0			-20	nA
Collector cut-off current	I <sub>CEx</sub>	V <sub>CE</sub> =-30 V, V <sub>BE(off)</sub> =-0.5V			-50	
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -3V, I <sub>c</sub> =0			-10	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-150 mA, I <sub>B</sub> = -15mA			-0.4	V
		I <sub>c</sub> =-500 mA, I <sub>B</sub> = -50mA			-0.67	
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =-150 mA, I <sub>B</sub> = -15mA			-1	
		I <sub>c</sub> =-500 mA, I <sub>B</sub> = -50mA			-1.2	
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -150mA	100		300	
	h <sub>FE(2)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -0.1mA	52			
	h <sub>FE(3)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -500mA	32			
Delay time	t <sub>d</sub>	V <sub>CC</sub> =-30V, I <sub>c</sub> =15mA, I <sub>B1</sub> =-15mA			10	ns
Rise time	t <sub>r</sub>				25	
Storage time	t <sub>s</sub>	V <sub>CE</sub> =-6V, I <sub>c</sub> =-150mA, I <sub>B1</sub> =- I <sub>B2</sub> =- 15mA			225	
Fall time	t <sub>f</sub>				60	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -20V, I <sub>c</sub> = -50mA, f=100MHz	200			MHz

### ■ Classification of h<sub>FE(1)</sub>

Rank	L	H
Range	100-200	200-300
Marking	M2B	

## PNP Transistors MMBT2907

### Typical Characteristics

